SmarTemp Control 3.0 SmarTemp Control 3.0 Bluetooth

Digital Control Interface For Air and Coolant Heaters



Installation / Operation Instructions

English	2
Français	15





WARNING: Cancer and Reproductive Harm www.P65Warnings.ca.gov

General

Thank you for choosing Webasto to meet your heating needs. The Webasto SmarTemp Control 3.0 enables you to quickly and effortlessly operate Webasto air and coolant heaters specified in the compatibility section.

NOTE: The information in this document refers to both the SmarTemp Control 3.0 and SmarTemp Control 3.0 Bluetooth unless otherwise noted.

Operation

The Webasto SmarTemp Control 3.0 is the next generation of the SmarTemp series controllers. It's operated using a single rotary dial around the outside of the unit to scroll through menu options. Simply click the select button to make your choice. Refer to LCD Screen Symbol Legend on page 5 for more information.

Compatibility

AT 2000 STC – Rheostat to SmarTemp 3.0 Bluetooth Adapter harness (P/N: 5013929B)

AT EVO 40/55 – Rheostat to SmarTemp 3.0 Bluetooth Adapter harness (P/N: 5013930A)

AT 2000STC & EVO 40/55 – SmarTemp 2.0 to SmarTemp 3.0 Adapter harness (P/N: 5013931A)

Thermo Pro 50 & Thermo Top Evo – Rocker switch to SmarTemp 3.0 Bluetooth Adapter harness (P/N: 5013932A)

Mounting Procedure

Multiple factors such as doors and windows must be taken into consideration as they can directly affect the SmarTemp Controls ambient temperature reading. Refer to "Temperature Calibration" section on page 4 if these obstacles are unavoidable.

Find a suitable mounting location (on a flat surface if possible) in a visible area.
 CAUTION: The SmarTemp unit must not be mounted within 7.9
in (20 cm) from occupants.

CAUTION: Always install the unit in an area protected from the effects of weather and dust contamination or the unit will not function as intended.

- 2. Use the drilling dimensions / template in the back of this manual to lightly mark the two mounting holes.
- 3. **(Optional Step)** To route wire harness through the mounting surface, drill a 17mm hole as notated on the drilling dimensions / template.

Note: Always make sure there are no obstacles behind the mounting location prior to drilling.

4. Secure the Webasto SmarTemp Control 3.0 using the two supplied #4 screws.



Electrical Connections

This is a plug and play kit for all compatible heaters. Refer to the compatibility section for adapter part numbers.

Connector Pin out

	3 4 1 2			
Iso View Wire Insertion End Iso View Wire	Insertion End			
Pin #ColorDescriptionPin #ColorDescription				
1 Red 12V / 24V power 1 Gray Brake signal input*	5			
2BrownBattery ground2Open cavity				
3 Black Heater ON signal (coolant heater only) 3 Yellow/ Red W-Bus				
4Not used4YellowAmbient temperatu only)	ure (air heaters			
For terminal removal use: Molex terminal removal tool P/N: 11-03-0044 <u>http://www.molex.com</u>				

* Only used in original equipment installations

Temperature Calibration

Based on the installation location of the SmarTemp Control 3.0, multiple factors such as door openings can affect the SmarTemp Controls ambient temperature reading. If temperature offset adjustment is needed see "Offset" on page 7 for further details.



Interface Description – SmarTemp Control 3.0 Panel (Air Heater)

Interface Description – SmarTemp Control 3.0 Panel (Coolant Heater)



LCD Screen Symbol Legend – Air Heater

Main Screen	Heater Mode Timer Start Day / Time Timer Active Ambient Temperature Set Temperature	6:30 <i>*</i> * 75 °F	ి 6 75	30 <i>"</i> , ↔	Vent Mode Timer Start Day / Time Ambient Temperature Timer Active
Heat Mode	Ambient Temperature User Set Temperature	HeatM → 70 → Sot. 75 °F	^{node} ← °F <u>∭</u> ←	Mode Heater	Indicator ON
Vent Mode	Runtime Remaining Ambient Temperature Fan Speed Indicator (Low – Medium - High)	10: VentM 75	°F \$ \$	Mode Fan ON	Indicator

LCD Screen Symbol Legend – Coolant Heater

Mode (Auto or Manual)		Auto Mode		Manual Mode	
Day / Time Auto or Manual Mode	TU 8:15 Menomber Ao	 Current Day 	Timer Active Auto Mode	TU Curren t Day 8:15 AV Curren t Time 00:59 III Runtime Remaining ON	Manual Mode Mode Mode Mode Mode Mode Mode Mode
NOTE: When Auto is visible, timers are enabled				Runtime Remaining	

Operation Using SmarTemp Panel

Heater ON Example

Press the Webasto button to turn heater on.

Select heater model – SmarTemp 3.0

- 1. Using the selection button enter the menu.
- 2. Using the rotary dial and the selection button, select Heater.
- 3. Select Heater again to enter the list of available heaters.
- 4. Select the heater you wish to control with the SmarTemp 3.0 using the rotary dial and the selection button.

Select heater model – SmarTemp 3.0 Mobile App

- 1. From the home page tap the selection icon.
- 2. Select Heater Model from the settings menu.
- 3. Select the heater you wish to control with the SmarTemp 3.0 mobil app.

Assign custom name to a heater – SmarTemp 3.0 Mobile App

- 1. From the home page tap the selection icon.
- 2. Select Heater Model from the settings menu, then select Heater name
- 3. You can now type in a heater name and add a custom image as well.

Set Temperature Output & Heater Runtime Example – Air Heater

Using the rotary dial and the selection button, follow these steps to set your cab temperature to 70°F with a runtime of 4 hours.

- 1. Press the Selection button. Using the rotary dial, select: Duration > Timed > Then set your duration to 4 hours. Confirm the adjustment by pushing the selection button.
- 2. From the main screen use the rotary dial to adjust the set temperature to 70°F; confirm the adjustment by pushing the selection button.

NOTE: The set temperature can be adjusted quickly even when the heater is running using the same method as above.

Set Timer Example – Air Heater

Set timer to turn on Friday at 6:30AM with a runtime of 60 minutes.

- 1. Press the Select button. Using the rotary dial, select Timer.
- 2. Highlight the timer feature, press the Selection button. Select "edit" from the sub-menu.
- 3. Adjust and select day for Friday.
- 4. Adjust and select time for 6:30AM.
- 5. Adjust and select runtime for 60 minutes.
- 6. Settings are saved each time the Select button is pressed.

Refer to Menu Descriptions Table for a detailed description of each menu item and its default setting.

Set Temperature Output & Heater Runtime Example – Air Heater

Using the rotary dial and the selection button, follow these steps to set your cab temperature to 70°F with a runtime of 1 hour.

- 1. Press the Select button. Using the rotary dial, select: Duration > Timed > Then set your duration to 1 hour. Confirm the adjustment by pushing the selection button.
- 2. From the main screen use the rotary dial to adjust the set temperature to 70°F; confirm the adjustment by pushing the selection button.

NOTE: The set temperature can be adjusted quickly even when the heater is running using the same method as above.

Set Timer Example – Coolant Heater

Set timer to turn on Friday at 6:30AM with a runtime of 60 minutes.

- 1. Press the Select button. Using the rotary dial, select Timer.
- 2. Select the timed event you wish to edit
- 3. Use the rotary dial and the Select button to select ON or OFF to enable or disable that timed event.
- 4. Use the rotary dial and the Select button to select the time and day.
- 5. Edit the start time and the duration using the rotary dial and the Select button.
- 6. Use the rotary dial and the Select button to return to the main screen

Refer to Menu Descriptions Table for a detailed description of each menu item and its default setting.

	Definitions	Default Value
	Air Heater: Mode changes the operation of the heater between heat mode and ventilation mode. Status indicator lights will illuminate red for heat mode and blue for ventilation mode (air heaters only) when the selected mode is active.	Heat Mode
Mode	 Coolant heater: Two modes are possible: – Auto mode enables the pre-defined timer programs. Manual ON/OFF functionality is still possible while in this mode. – Manual Mode allows the heater to be operated via the Webasto button on the SmarTemp Control fx 3.0. While in Manual Mode, all Auto Mode functionality is permanently disabled. Note: While in manual mode the heater will continue to operate based on the predefined "Duration" set by the user. See "Duration" for further detail. 	Manual Mode
Timer	Air Heater: User can select a specific day, time, and heater runtime up to 7 days in the future. Be aware this is a one-occurrence timer requiring the user to turn the timer "ON" again after each scheduled timer use. When selecting timer, a sub-menu will appear (Edit, On, and Off). To modify timer settings, select "edit". Select the day, time, and heater runtime using the rotary knob and the selection button. Settings are saved each time the selection button is pressed. If the timer function will be used regularly for next day startups, the "ANY" setting can be used in place of the day of the week. With this set, the timer will disregard the day setting and start during the next 24- hour period based on the time selected. The "ANY" setting is located in the list of days between Saturday and Sunday. Coolant Heater: There are a maximum of 4 timed events per day, and up to 28 timed events per week. Note: Timers are only active in Auto mode. Note: To turn a specific timer off permanently select "off".	OFF
Duration	Air Heaters: Duration allows for the selection of <u>continuous</u> heater operation or <u>timed</u> operation. The heater runtime can be set to run for between 30 minutes to 14 hours, in 30-minute increments. IMPORTANT: <u>Timed</u> duration is not to be mistaken for Timer functionality. The duration times above are used when turning the heater on manually. i.e. set the heater duration for 8 hours before heading to bed. Note: If <u>timed</u> operation is selected 10 hours is default.	Continuous
	Coolant Heaters: Coolant heaters have a minimum run-time of 10 minutes and a maximum of 120 minutes. This can be set in increments of 10 minutes. Note: While in manual mode the heater will continue to operate based on the predefined "Duration" set by the user. See "Duration" for further detail.	
Language	Language changes between English, Spanish, and French.	English

Offset	This allows the user to set an offset (plus or minus 9°F, 5°C) to compensate for any temperature difference between what the SmarTemp reads, and what the operator feels. NOTE: This function only applies to air heaters.	0°
Temp Unit	Temp Unit changes between Fahrenheit and Celsius units of measure. NOTE: This function only applies to air heaters.	Fahrenheit
LVD	LVD "Low Voltage Disconnect" allows the user to set the battery voltage level at which the Webasto SmarTemp Control 3.0 will shut down the heater. A warning (LED and message) will appear after 8 minutes of low voltage. The warning will remain on for 2 minutes before the heater is switched off. If battery voltage is equal to or less than the threshold selected +0.1v, the heater will not start. i.e. if an 11.5v threshold is selected the heater cannot be started until B+ has reached 11.7v. 12 volt - Range between $11v - 12.5v$ 24 volt - Range between $21v - 25.5v$	11.4v 24.2v
PM Reminder	If the heater has not run 30 days, the preventive maintenance (PM) reminder will alert the operator with a message to run the heater for 20 minutes. The indicator lights will flash red as a visual reminder. The operator will have the ability to Start the 20-minute maintenance cycle or delay it via a "Snooze" option. When Snooze is selected the PM reminder will postpone until 12:00PM the following day.	ON
Time & Date	Set time and date using the rotary knob and selection button. 12 (AM / PM) or 24-hour available. The Webasto button can be used to go back to the previous field if additional changes are needed. NOTE: This must be done before starting the heater for the first time after power has been applied.	
Backlight	Set intensity of backlight.	80%
User Permission	A password can be set to prevent access to the advanced "Options" menu. Enter a 4-digit code passcode to begin securing the "Options" menu. Note: This is typically used in fleet vehicle applications.	Disabled
Bluetooth (Bluetooth units only)	Enable or disable Bluetooth functionality. Note: Bluetooth is not available on base models.	Enabled
Error Code	This section will log the last 5 error codes and the date that it was set. Highlight and select an error code for a full description. If the heater produces an error code, the status indicator lights will flash red and the error will display on the main screen. NOTE: Heater error codes cannot be reset through the Webasto SmarTemp Control 3.0; a Webasto PC Diagnostics tool or the SmarTemp app is required. Refer to the heater service manual for resetting an error code.	
Brake Input Signal	When enabled the heater will only start when the parking brake is enabled and a 12V signal on the Brake Input pin of the SmarTemp 3.0 connector. NOTE: This feature is only used in original-equipment applications and requires a specific harness.	Disabled
Heaters	Select the heater model.	

Reset to Default	Returns all settings to factory default values.	
Back	Select this to return to the previous screen.	N/A

Status Indicator Lights - The Red status indicators (heater "ON") and LCD screen backlight turn off after 30 seconds. A touch of any button or a turn of the rotary knob will re-activate these lights. If the "Webasto" button is used to re-activate these lights, an additional press of this button is necessary to turn the heater off. Note that when the heater is "ON" the display is active.

Operation from Mobile Application

The SmarTemp 3.0 with Bluetooth connectivity can be controlled via a smartphone or other mobile device. After downloading the app, you will be asked to agree to Terms and Conditions and our Privacy Policy the first time you wish to use the application.

The device will scan for nearby devices when the application is started. Be sure your SmarTemp 3.0 has Bluetooth enabled by going to Settings – Bluetooth – Enabled before starting the application for the first time. If you are connecting for the first time you will need to enter an access code.

Acce	ess code required
Enter 4-di	git code displayed on devic 98:F4:AB:6F:A8:6E



The first time your SmarTemp is discovered, you will be prompted to enter a 4-digit code that will be displayed on the SmarTemp screen. Enter that code and press SEND.

Note: Air heater screen is shown, coolant heater similar.

The home screen shows the current status of the heater. Refer to the table below for detailed information.

Note: Heater cannot be turned on with SmarTemp 3.0, if equipped, when attempting to connect with Webasto Thermo Test (WTT) via the diagnostic connector. When WTT is connected, the heater must be operated through the WTT interface.

Refer to the table below for an explanation of the various icons and their functionality

ICON	Function
AT 2000 STC	Heater currently being controlled by the application. The SmarTemp 3.0 with Bluetooth has the capability to change the name of the heater.
ON/OFF	Turns the heater ON or OFF.
Ū TIMER	Up to four timer events can be set, edited, and activated using the timer function.
	Temperature selection (air heaters only).
DIAGNOSTIC	Opens the diagnostic screen. This allows passive observation of outputs, activation of individual components is not possible within the mobile application. For full-featured access, PC Diagnostics must be used. This option does allow for clearing of fault codes, printing a diagnostic report, and sending a diagnostic report via e-mail or text message.
	Status indicator: The home screen displays an image of the heater currently selected or the image the user selects (optional on Bluetooth units).
	Heat mode is indicated by a red icon while in continuous mode (air heaters only). Remaining run time is shown when timed operation is selected; continuous duration is shown.
<u>m</u>	Ventilation mode (air heaters only) is indicated by a blue icon. Remaining run time is shows when timed operation is selected; continuous duration is shown.

13.5 V	Battery voltage display. NOTE: The voltage displayed is voltage present at the SmarTemp connector.
€ 77 °F	Ambient temperature measured at the SmarTemp (air heaters only).
Set Temperature 5 72 °F	This is the temperature the SmarTemp is set to maintain (air heaters only).
Home	Returns the user to the home screen.
C Settings	This icon accesses the same menu settings as detailed in the chart on page 7.
More	The More menu assists with basic troubleshooting and contains the Privacy Policy and Terms & Conditions. NOTE: Links will take you to <u>www.techwebasto.com</u> .
Colucient Coluci	When the user is accessing the menu structure within the SmarTemp 3.0 this screen will appear in the application preventing conflicting settings.

Diagnostic Information

SmarTemp

When the heater detects a fault, a fault code message will be displayed on the SmarTemp 3.0 screen. This information can aid in diagnosing and rectifying the fault. Refer to the service information for the heater in question, found on <u>www.techwebasto.com</u> for more information.

Up to five previous faults are stored in the SmarTemp 3.0. These can be accessed and displayed on the SmarTemp 3.0 screen by selecting the Error Code menu selection.

SmarTemp 3.0 Application

Current and stored fault code information can be accessed through the SmarTemp 3.0 mobile application by selecting the Diagnostic icon on the home screen. This information can aid in diagnosing and rectifying the fault. Refer to the service information for the heater in question, found on <u>www.techwebasto.com</u> for more information.

After selecting the Diagnostic icon from the home page there are two headers; View and Diagnostic. The tables below discuss those options.

VIEW				
	Diagnostic View			
B Overview	The overview shows the operator current operating parameters of the heater in real time. The view will differ depending on the heater currently selected and connected to, but items such as supply voltage, output temperature, heating energy, flame detector, combustion air fan, fuel pump, and glow plug are shows with values represented on a bar graph. Indicator lights are also displayed that show and active/inactive state.			
i Operational information	This view is divided into three areas: <i>Operational information</i> icon shows various operational parameters programmed into the heater such as minimum and maximum voltage threshold, software version, etc. <i>Operating data</i> shows the total heating time, on-time PH (pre-heat), on-time SH (supplemental heat), etc. <i>Error codes</i> (up to five) will also be listed in this section. You also have the ability to <i>Export customer report</i> from this section. This can be exported via text message, mail, or various other forms of mobile communication.			
A Fault list	The fault list shows up to 5 stored or active faults that have been detected by the heater's control module. The faults are displayed most recent on top. The state of the fault, stored and/or actual, will be indicated with a Yes or No as well as how many times the fault has occurred by the fault counter. The Code and Advanced error information helps in diagnosing the error. Refer to the service information for the heater in question, found on <u>www.techwebasto.com</u> for more information.			

3 × Clear errors	Use this function to clear all fault codes from the timer. The fault codes in the heater will remain.	
	DIAGNOSTIC	
Dia	agnostic View	
The diagnostic heater only changes the options at the top of the page, the lower portion will remain the view that is selected under the View header.		
Start Stop diagnosis diagnosis	Stop and start diagnosis by using these icons.	
Customer report	The Customer report icon generates a customer report that can be sent via text message or e-mail.	

Technical Information:

- Rated Voltage: 12V / 24V
- Operating Voltage Range: 9V 32V
- Low Voltage Disconnect Range: 12V: 11 12.5V | 24V: 21 25.5V
- Operating Temperature: 40° ... +185 °F (- 40° ... +85 °C)
 Note: Display visible to -22°F (-30°C)
- Set Temperature Range: 41° 95° F (5° 35° C)
- Installation Dimensions: (L x H x D) 2.7" x 2.2" x .60" (69.4mm x 55.5mm x 15.2mm)

Drilling Dimensions

Use the dimensions / template located in the back of this manual as a guide when installing and mounting the Webasto SmarTemp Control 3.0.

NOTE: The Webasto SmarTemp Control 3.0 has an integrated ambient temperature sensor. To ensure this sensor properly measures the surrounding air, the unit must only be mounted in the vertical position.

NOTE: Refer to the connection diagrams at the end of this document for more information on wiring connections.



AT 2000 STC SmarTemp 2.0 Direct Connection / AT 2000STC Connexion directe SmarTemp 2.0



AT 2000 STC Rheostat to SmarTemp 2.0 Retrofit / AT 2000STC Connexions de modernisation - rhéostat à 2.0



AT 2000 STC SmarTemp 2.0 Retrofit to SmarTemp 3.0 / AT 2000STC Connexions de modernisation - SmarTemp 2.0 à 3.0



AT 2000 STC SmarTemp 2.0 Direct Connection to SmarTemp 3.0 / AT 2000STC SmarTemp 2.0 Connexion directe à SmarTemp 3.0



AT 2000STC SmarTemp 3.0 Direct Connection / Connexion directe AT 2000STC SmarTemp 3.0



AT 2000STC SmarTemp Rheostat to SmarTemp 3.0 Retrofit Connections / Rhéostat Air Top 2000STC vers SmarTemp 3.0



AT EVO 40/55 SmarTemp 2.0 Direct Connection / Connexion directe Air Top EVO 40/55 SmarTemp 2.0



AT EVO 40/55 SmarTemp 2.0 Retrofit / Rhéostat Air Top EVO 40/55 vers SmarTemp 2.0



AT EVO 40/55 SmarTemp 2.0 Retrofit to SmarTemp 3.0 / Air Top EVO 40/55 SmarTemp 2.0 Retrofit à Smartemp 3.0



AT EVO 40/55 SmarTemp 2.0 Direct Connection to SmarTemp 3.0 / AT EVO 40/55 SmarTemp 2.0 Connexion directe à Smartemp 3.0



AT EVO 40/55 SmarTemp 3.0 Direct Connection / Connexion directe Air Top EVO 40/55 SmarTemp 3.0



AT EVO 40/55 Rheostat to SmarTemp 2.0 Retrofit / Rhéostat Air Top EVO 40/55 vers SmarTemp 3.0



Thermo Top EVO SmarTemp 3.0 Direct Connection / Thermo Top EVO SmarTemp 3.0 Connexion directe



Thermo Top EVO SmarTemp 2.0 to 3.0 Retrofit / Thermo Top EVO SmarTemp 2.0 à 3.0

This drawing is for dimensional reference only. This is not a template.



Ce dessin sert uniquement de référence dimensionnelle. Ceci n'est pas un modèle.



Feel the Drive

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